Amendments to the Claims:

Claims 15-16 and 29-31 are amended. Claims 17, 25 and 32-34 are canceled by this amendment without disclaimer or prejudice to prosecution of the subject matter of the claims in a related application. This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claims 1-14 (cancelled)

Claim 15 (currently amended): A method for preparing an epothilone D derivative having a methyl group at C-12 and a double bond between C-12 and C-13, which method comprises providing substrates including extender units to a non-*S. cellulosum* host cell that expresses a ~~A~~ modified functional *Sorangium cellulosm* epothilone polyketide synthase (PKS), wherein said PKS comprises

(a) *Sorangium cellulosum* EpoA, EpoB, EpoC, EpoD, and EpoF proteins and (b) a modified functional EpoE protein wherein said modification comprises at least one of:

replacement of at least one acyltransferase (AT) domain with an AT domain of different specificity in module 7 and/or module 8;

inactivation of a ketoreductase (KR) domain in module 7;

inactivation of a methyltransferase (MT) domain in module 8; and

addition of at least one of KR, dehydrogenase (DH) and enoylreductase (ER) activity in at least one β-carbonyl modification domain in module 7 and/or module 8;

~~wherein the modified PKS is contained in a non-*S. cellulosum* cell or contained in a cell-free system, and wherein the modified PKS produces an epothilone D derivative with a double bond between C-12 and C-13~~.

Claim 16 (currently amended): The method of claim 15 wherein ~~modified PKS of claim 15 wherein~~ said cell ~~or system~~ contains additional enzymes for modification of said epothilone D derivative.

Claims 17-28 (cancelled)

Claim 29 (currently amended): A method for preparing an epothilone D derivative having a methyl group at C-12 and a double bond between C-12 and C-13, which method comprises providing substrates including extender units to a non-*S. cellulosum* host cell that expresses a ~~A~~ modified functional epothilone polyketide synthase (PKS) ~~contained in a non-S. cellulosum host cell~~, said PKS comprising (a) ~~the proteins encoded by the *Sorangium cellulosum epoA, epoB, epoC, epoD,* and *epoF* genes~~ *Sorangium cellulosum* EpoA, EpoB, EpoC, EpoD, and EpoF proteins and (b) a modified functional EpoE protein that lacks at least one activity encoded by a ~~Sorangium cellulosum~~ *Sorangium cellulosum epoE* gene and/or comprises at least one domain derived from a heterologous polyketide synthase ~~(PKS), wherein the PKS produces an epothilone D derivative with a double bond between C-12 and C-13 when expressed in the cell~~.

Claim 30 (currently amended): The method of claim 29 ~~modified functional epothilone PKS of claim 29~~ wherein module 7 of the modified functional epothilone synthase comprises an acyl transferase (AT) domain having malonyl, ethylmalonyl, or 2-hydroxymalonyl specificity and/or module 8 of the modified functional epothilone synthase comprises an AT having malonyl, ethylmalonyl, or 2-hydroxymalonyl specificity.

Claim 31 (currently amended): The method of claim 29 ~~modified functional epothilone PKS of claim 29~~ wherein ~~modified functional epothilone PKS of claim 29 that lacks a methyl transferase (MT) activity of~~ module 8 of the modified functional epothilone synthase lacks a methyl transferase (MT) activity.

Claims 32-34 (cancelled)